

IRRIGATION CANAL OR LATERAL

Design Survey

The following information shall be obtained and recorded in the field notes:

- a. Profile along centerline along with cross-sections off the centerline as needed to properly evaluate conditions.
- b. Alignment of centerline (if new construction).
- c. Soils investigation as needed to identify subsurface conditions.
- d. Topographic information to establish grades & water surface elevations.
- e. Clearing requirements.

Design Data

The following shall be considered minimum in the design of all irrigation canals or laterals. The information shall be recorded in the design notes. Appropriate data shall be transferred to the construction drawings.

- a. Hydrology of drainage areas contributing to inflow along the canal or lateral.
- b. Capacity requirements.
- c. Hydraulics of system.
- d. Structural design, for special sections.
- e. Soils investigation reports.
- f. Records indicating NRCS obligations regarding State and Federal regulations including NEPA requirements have been met.

Drawings and Specifications

The construction drawings shall include, but will not be limited to the following:

- a. Plan of installation.
- b. Planned profile and cross-section.
- c. Structure details and alignment. (Also see Structure for Water Control.)
- d. Clearing location, extent.
- e. Location map.
- f. Table of quantities and steel schedule, if required.

Practice specifications and, if needed, applicable "Items of Work and Construction Details" shall be provided for each item or phase of construction. Some small jobs may be adequately described by specifications on the drawings.

Layout Survey Notes

The following information shall be recorded in the field notes:

- a. Centerline and required cut stakes.
- b. Offset stakes as required.
- c. Grade and alignment stakes for structures.

Compliance Checks

The complexity of the structure will dictate the need for compliance checks during construction. All compliance checks shall be recorded in the field notes. Narratives of construction checks shall be recorded in the Job Diary or on a sheet in the field notes. Compliance checks shall include, but will not be limited to the following:

- a. Profile of excavated ditch (100 feet maximum interval).
- b. Cross-section of ditch (500 feet maximum interval).
- c. Controlling elevations, measurements, materials and alignment of structures.
- d. Statement of compliance.

As-Built Plans

As-Built drawings shall be prepared for all irrigation canals and laterals. These drawings shall reflect all significant changes in linear measurements, quantities, alignment or design changes. If there were no significant changes, the original drawings shall be marked "As-Built".